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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/589,916

08/18/2006

Walthard Vilser

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08/13/2008

REED SMITH, LLP

ATTN: PATENT RECORDS DEPARTMENT

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NEW YORK, NY 10022-7650

EXAMINER

SCHWARTZ, JORDAN MARC

ART UNIT

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2873

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/589,916	Applicant(s) VILSER ET AL.	
	Examiner Jordan M. Schwartz	Art Unit 2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-61 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 31-61 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. PCT/DE05/000287, filed on February 16, 2005.

Specification

The abstract of the disclosure is objected to for the following reason. There are two abstracts both submitted August 18, 2006. One is the abstract from the PCT and the other is a separately submitted abstract. It is not clear as to which is the intended abstract. Additionally, the separately submitted abstract would be objected to as being greater than 150 words and more than 15 lines. See MPEP 37 CFR 1.72 and § 608.01(b). It is suggested that applicant resubmit the intended abstract making sure that it is less than 150 words and less than 15 lines.

Claim Rejections - 35 USC § 112

Claims 31 and 60 (and their respective dependent claims) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 31 and 60, the claimed "at least one reference wavelength region being at least approximately invariant with respect to medically relevant information" renders the claims vague and indefinite. It is not clear as to what applicant means by a wavelength region being invariant with respect to information.

Claim Objections

Claims 40, 58-59 and 60 (and their respective dependent claims) are objected to for the following reasons. Since the intended meaning could be determined from what is set forth in the specification and figures, 112 rejections were not made but instead these lack of clarity issues are being raised in the following objections.

With respect to claim 40, the claimed "wherein the means for matching the intensity" lacks and antecedent basis and should be corrected to "wherein means for matching the intensity" (deleting "the").

With respect to claim 58, the claimed "by controlling the spectrally tunable bandpass filters" lacks and antecedent basis and should be corrected to " by controlling spectrally tunable bandpass filters " (deleting "the").

With respect to claim 59, the claimed "which control and optimize the matching of intensities" lacks and antecedent basis and should be corrected to " which control and optimize matching of intensities " (deleting "the").

With respect to claim 60, line 12, the claimed "in that secondary image values which are associated" should be corrected to "and generating secondary image values which are associated" in order to claim the limitation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

Art Unit: 2873

granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 31, 36, 40-41, 46, and 60 are rejected under 35 U.S.C. 102(b) as being anticipated by Marcelpoil publication number 2003/0091221.

Marcelpoil reads on these claims by disclosing the limitations therein including the following: an arrangement for recording and reproducing images of an object to be examined (abstract); comprising an illumination system (paragraphs 0032, 0035); an image-generating recording system (paragraph 0018, 0038); a controlling and evaluating computer (paragraph 0020); the illumination system including means to select two wavelength regions as a reference and information wavelength region in order to illuminate an image simultaneously (paragraphs 0015, 0037); the system comprising an image-recording camera (paragraph 0018, 0038); the two wavelength regions each being adapted to a color channel for the camera (paragraphs 0015, 0038); one wavelength being approximately invariant to medically relevant information (to the extent this is understood, paragraph 0037); at least one information region for detecting medically relevant information (paragraph 0037); a continuously emitting illumination source (paragraphs 0032, 0035, 0047); means to match the intensity of the regions designed for variable intensities (paragraphs 0044); and uniting and generating secondary image values associated with the anatomical structures from conjugate image points (paragraphs 0015, 0018, 0037-0038).

Claims 31-33, 36-41, 46, 60 are rejected under 35 U.S.C. 102(b) as being anticipated by Fulghum patent number 6,364,829.

Fulghum reads on these claims by disclosing the limitations therein including the following: an arrangement for recording and reproducing images of an object to be examined (abstract); comprising an illumination system (column 3, lines 18-42); an image-generating recording system (column 14, line 60 to column 15, line 14); a controlling and evaluating computer (column 8, line 51 to column 9, line 2); the illumination system including means to select two wavelength regions as a reference and information wavelength region in order to illuminate an image simultaneously (column 5, lines 31-54, column 14, line 61 to column 15, line 14); the system comprising an image-recording camera (column 14, line 60 to column 15, line 14); the two wavelength regions each being adapted to a color channel for the camera (column 14, line 60 to column 15, line 14); one wavelength being approximately invariant to medically relevant information (to the extent this is understood, column 5, lines 31-54, column 14, line 61 to column 15, line 14); at least one information region for detecting medically relevant information (column 5, lines 31-54, column 14, line 61 to column 15, line 14); a bandpass filter with a layer construction to select the transmission regions arranged in a parallel beam portion (column 5, lines 31-54, column 11, lines 42-59); a continuously emitting illumination source (column 3, lines 18-42); two filters one being spectrally tunable in separate beam paths and which proceed from a common source and are united (column 5, lines 31-54, column 11, lines 42-59); two illumination sources with the light being combined (column 5, lines 31-54, column 11, lines 42-59); means to match the intensity of the regions designed for variable intensities (column 3, lines 18-42); and uniting and generating secondary image values associated with the anatomical

Art Unit: 2873

structures from conjugate image points (abstract, column 5, lines 31-54, column 11, lines 42-59, column 14, line 61 to column 15, line 14).

Claims 31, 36, 46, and 60 are rejected under 35 U.S.C. 102(e) as being anticipated by Bone publication number 2005/0010115.

Bone reads on these claims by disclosing the limitations therein including the following: an arrangement for recording and reproducing images of an object to be examined (abstract); comprising an illumination system (paragraph 0042); an image-generating recording system (paragraphs 0041-0042); a controlling and evaluating computer (paragraph 0051); the illumination system including means to select two wavelength regions as a reference and information wavelength region in order to illuminate an image simultaneously (paragraphs 0045-0046, 0068, with one color being the reference wavelength and the other being the information wavelength); the system comprising an image-recording camera (paragraphs 0045-0046); the two wavelength regions each being adapted to a color channel for the camera (paragraphs 0045-0046 re separate CCD's for each color); one wavelength being approximately invariant to medically relevant information (to the extent this is understood, paragraph 0068 re a reference wavelength similar to applicant's invention and paragraphs 0045-0046 in that none of the wavelength regions are changing and therefore all are invariant); at least one information region for detecting medically relevant information (abstract, paragraph 0045-0046, in that they are all detecting medically relevant information); a continuously emitting illumination source (paragraph 0042); and generating secondary image values

Art Unit: 2873

associated with the anatomical structures from conjugate image points (paragraphs 0060-0066, 0085-0091).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 32-35, 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bone.

With respect to claims 32-35, Bone disclose as is set forth above including disclosing the use of a bandpass filter (paragraph 0046), the filter in a parallel beam portion of the illumination path (Figure 2) and adjacent filter groups each containing a filter area (Figure 2, re the filter portions of wheel "36") but does not specifically disclose the bandpass filter either comprising layers or sectors for filtering. However, the examiner takes Judicial Notice that it is well known in the art of bandpass filters to use either layering or sectoring to provide the desired optical filtering of light. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the bandpass filter of Bone as providing the filtering by either layering or sectoring since it is well known in the art of bandpass filters to use either layering or sectoring to provide the desired optical filtering of light.

Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marceipoil or Fulghum or Bone in view of Matsumura patent number 4,279,478.

Art Unit: 2873

Marceipoil, Fulghum, and Bone disclose and teach as set forth above but do not specifically disclose stimulating the object to be examined for functional imaging.

Matsumura teaches that in an imaging system for imaging an object to be examined, that it is desirable to stimulate the object for the purpose of providing improved testing of the object (abstract, column 1, lines 36-60, column 11, lines 52-61). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the imaging systems of either Marceipoil or Fulghum or Bone as comprising a device to stimulate the object since Matsumura teaches that in a imaging system for imaging an object to be examined, that it is desirable to stimulate the object for the purpose of providing improved testing of the object.

Prior Art Citations

Adel et al patent number 6,142,629 is being cited herein to show another arrangement for recording and reproducing images that would have read on or made obvious a number of the above rejected claims, however, such rejections would have been repetitive.

Allowable Subject Matter

Claims 45, 47-59, and 61 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: with respect to the allowable subject matter, none of the prior art either alone or in combination disclose or teach of the claimed combination of limitations to warrant a

Art Unit: 2873

rejection under 35 USC 102 or 103. Specifically, with reference to claim 45, none of the prior art either alone or in combination disclose or teach of the claimed arrangement for recording and reproducing images specifically including, as the distinguishing features in combination with the other limitations, the modification having a temporally defined relationship with adjustments of the illumination source and of the image recording and image evaluation, and in that a secondary light which is generated from the primary light by the modification is provided for illumination and for selective stimulation or provocation of the object to be examined. Specifically, with reference to claims 47-59 and 61 none of the prior art either alone or in combination disclose or teach of the claimed arrangement for recording and reproducing images or image-generating method specifically including, as the distinguishing features in combination with the other limitations, an evaluation window is formed at least for one color channel, which evaluation window is moved over the image and comprises at least two adjacent image points whose gray values are combined by summing or averaging to form a window value, wherein the secondary image values are generated from window values of the color channels, which window values are conjugate to one another.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jordan M. Schwartz whose telephone number is 571-272-2337. The examiner can normally be reached on Monday to Friday from 8:00 to 4:30.

Art Unit: 2873

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jordan M. Schwartz
Primary Examiner
Art Unit 2873
August 8, 2008

/Jordan M. Schwartz/
Primary Examiner, Art Unit 2873